
Teaching and Learning Center

Scanning Basics for Epson Perfection 1640SU



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NOTE: The Teaching and Learning Center recommends the use of PhotoShop for scanning pictures/graphics/slides (covered in this document), OmniPage Pro for scanning text and Adobe Acrobat to scan something into pdf (covered in another document).

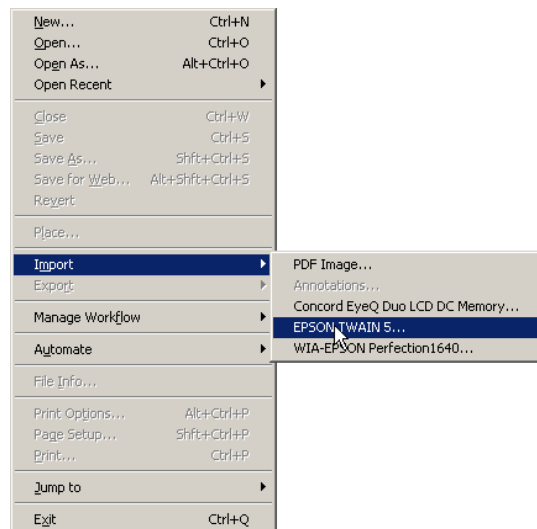
Using the Flatbed Scanner

Getting Started

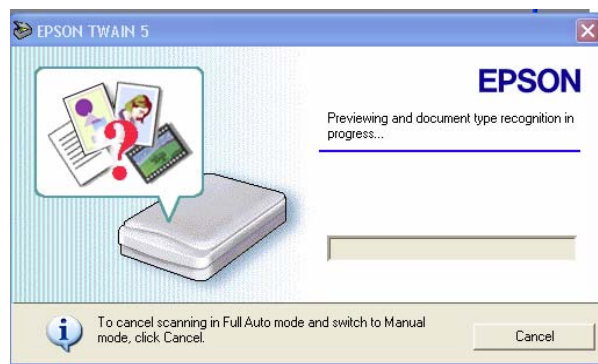
Scanning is basically the same process no matter what type of scanner you are using. Adobe Photoshop is just one of the programs that allows for scanning, and that is the program we are using in the step-by-step process below. Many scanners also come with their own scanning software, and this can be used as well. For the examples listed below, we will describe one of the scanners that is in the TLC computer lab, the Epson Perfection 1640SU.

Place your image facedown on the scanner. Double click on the 'Adobe PhotoShop' on your desktop, or select it in your Start menu.

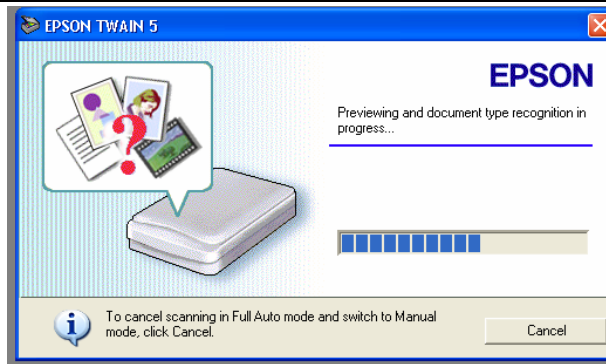
In Photoshop click **File**, point the cursor to **Import**, then click on **Select EPSON TWAIN 5...**



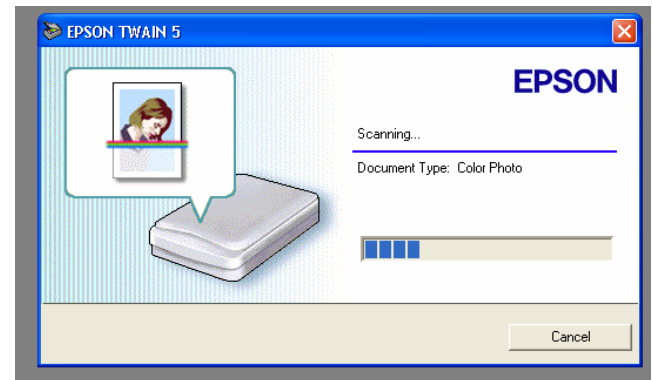
The scanner pre-scans your image. If you want to scan in full auto mode allow the pre-scan to continue. If you want to scan in manual mode click on cancel.



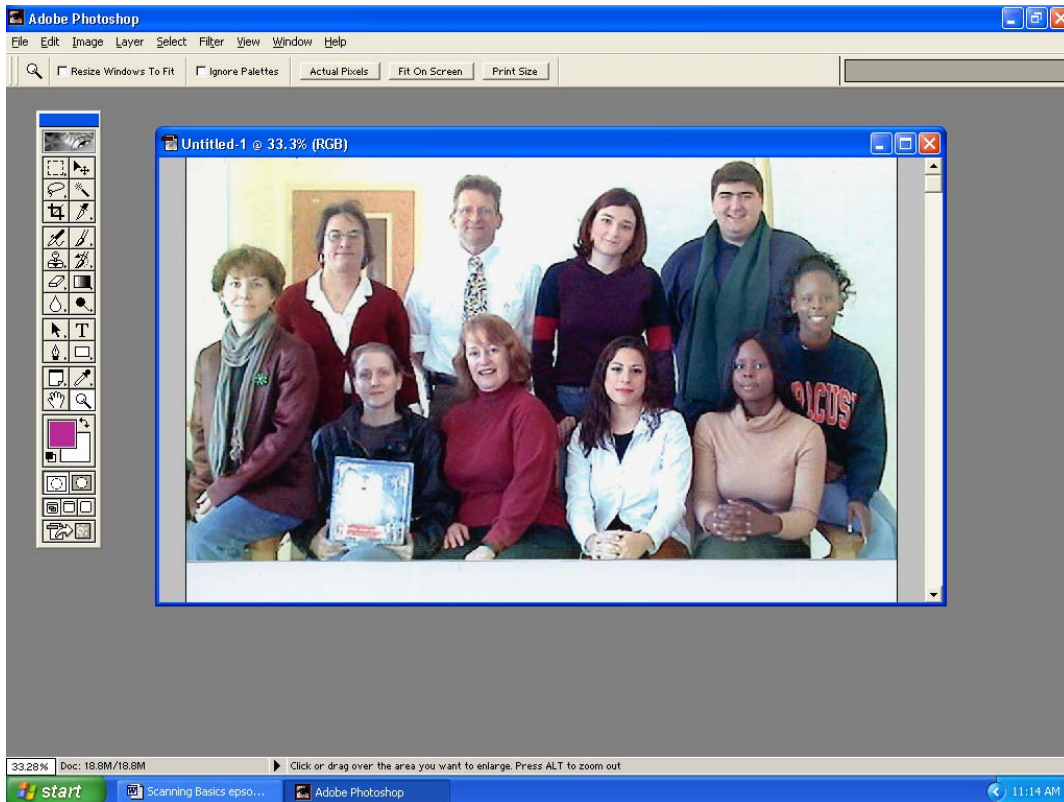
Using the Flatbed Scanner



In auto mode the scanner will choose the document type and continue to scan your image.

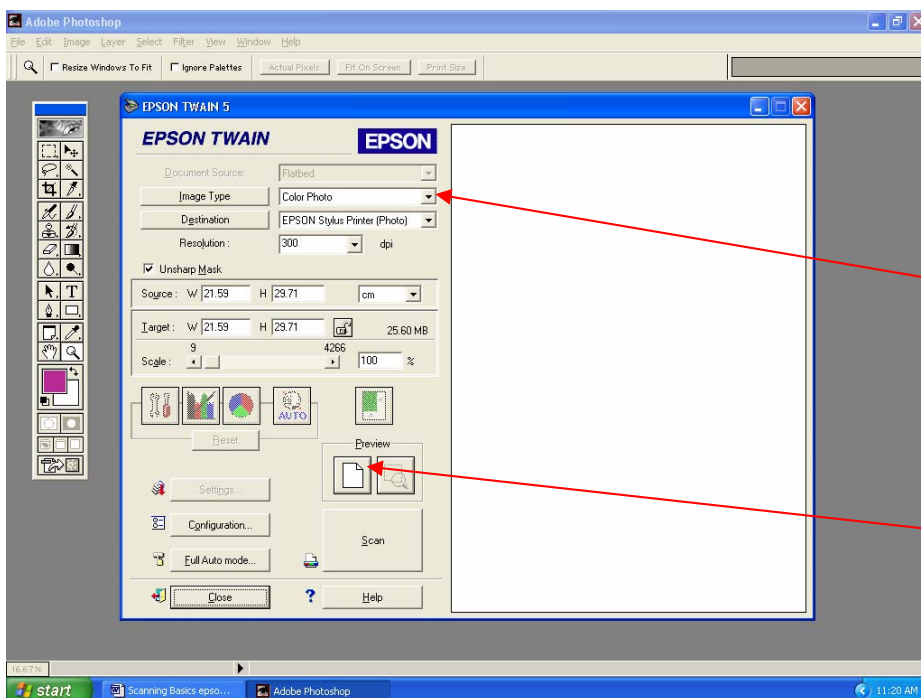
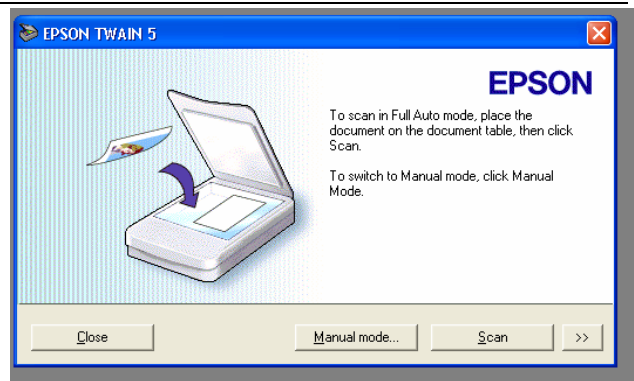


When the scanner is done scanning you will have a window open of your image in Photoshop similar to the one below.



Using the Flatbed Scanner

If you would like to continue in manual mode after clicking the initial cancel up above, a window will pop up asking to either click on Manual mode or Scan for continuing in Full Auto Mode. Click on manual mode.

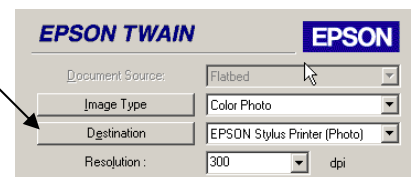


You will get a new window that looks similar to this. From here you can change the image type by using the pull down menu.

When the image type is correct click on the preview button.

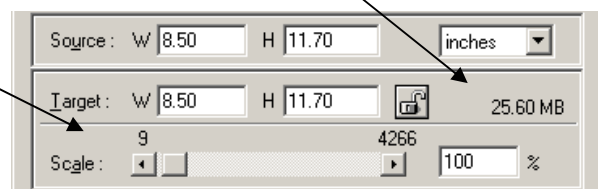
DESINATION: (this selects the resolution of the image.)

This does not tell you the actual resolution, it asks you what type of printer you are going to use and sets the **dots per inch (dpi)** for the best resolution for that printer. You can get around this by using the 300-dpi setting or the 600-dpi setting. For the Internet and the World Wide Web, use the "Web page" setting, which is 96 dpi or select 'Screen/Web'. You can also manually set the resolution by clicking the 'down button' to the left of the Resolution number.



SIZE displays the actual file size but this will change according to how much you crop the image and what type of file format you save your file as. For example, "jpeg" format has built in compression and can significantly reduce the file size.

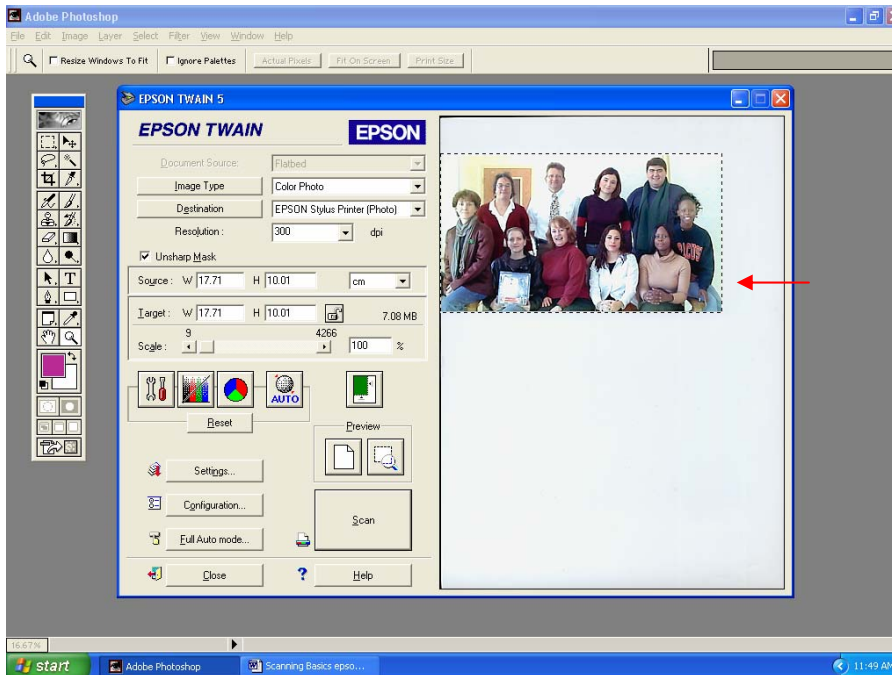
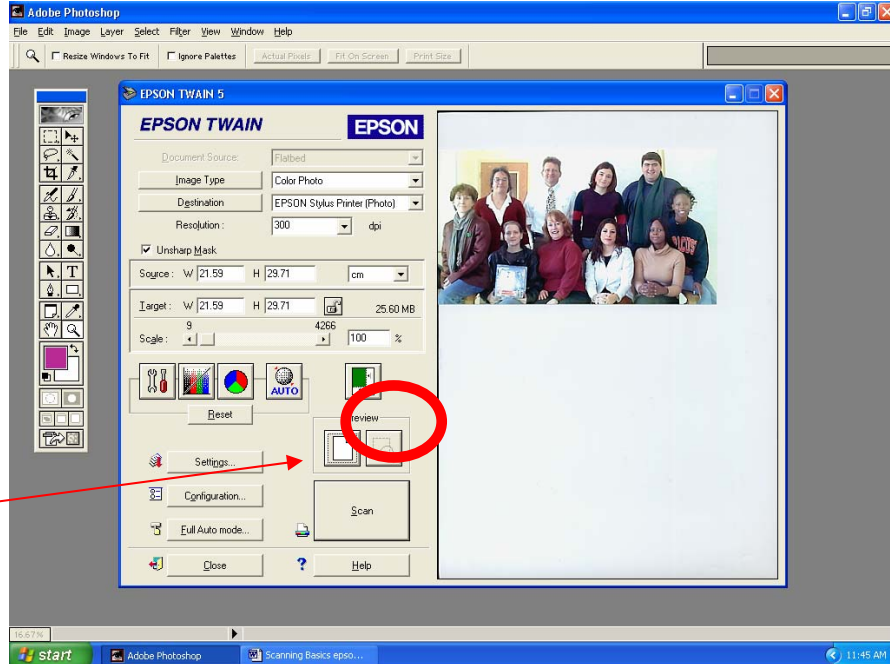
SCALING is used if you want to make the image size bigger or smaller than one to one.



Using the Flatbed Scanner

Normally it scans at a 1:1 ratio and displays the size at the bottom of the scaling window.

The actual image appears on the right hand side of the window. To have the program locate the image automatically click on



There is a dashed line outline around the image.

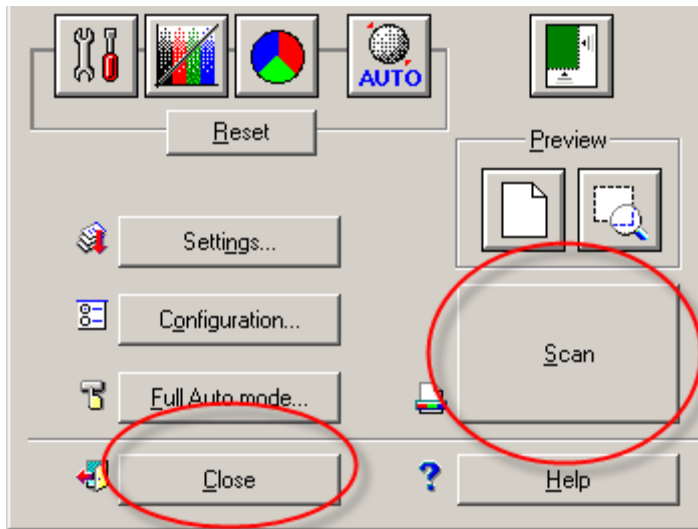
Grab the edges of the box by clicking on them and move them in or out so they fit around your picture. If the box disappears, click your mouse and drag to create a new box.

If you make changes to how you have your picture placed on the scanner, click the **Preview** button.

A new scan will begin.

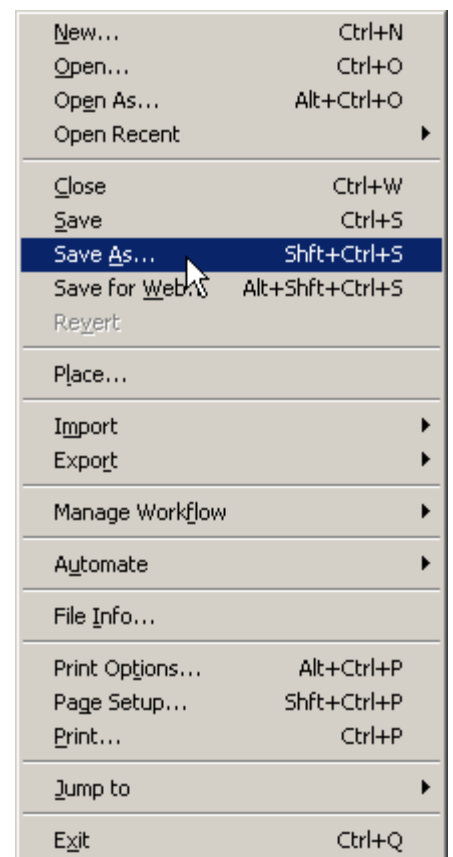
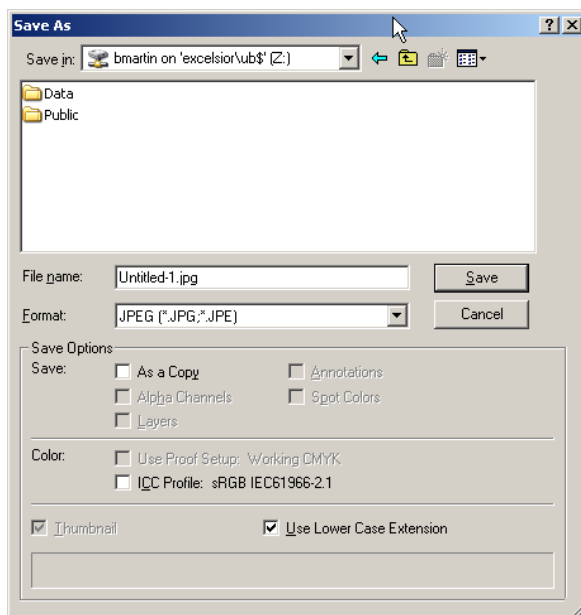
Using the Flatbed Scanner

When you are ready to make the final scan, click on the **Scan** button. After the scan is finished click on the **Close** button on the window and you will be back in **Adobe Photoshop**.



Your picture is not saved until you click **File / Save as**.

You can save the picture to disk, or to your **NT account**. (Please consult a TLC employee if you have any questions regarding your file size and applications.) Since there are several ways in which to save your file, one of the advisors can suggest the proper format for your specific application. Select where you would like to save your file under 'Save in:' name your file under 'File name;' and click **save**.



Using the Flatbed Scanner

When you have finished scanning and saving your picture, click on the **File / Exit**

Don't forget! to take your picture out of the scanner, and to sign out on your way out of the center.

Using the Slide Scanner

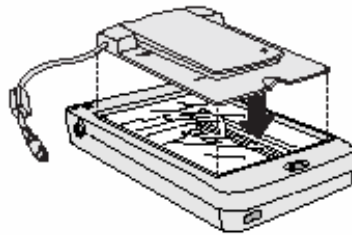
Using the Slide Scanner

(From http://www.epson.com/cgi-bin/Store/support/supDetail.jsp?BV_UseBVCookie=yes&infoType=Doc&oid=14567&prodoid=32723)

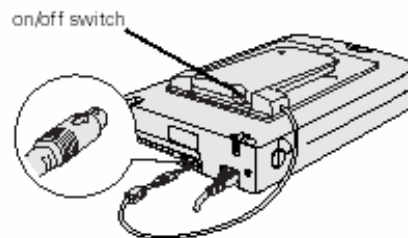
Installing the Transparency Unit

Follow the steps below to install the transparency unit on the scanner.

1. Make sure the scanner is turned off.
2. Remove the document cover from the scanner by opening it to an upright position and lifting it straight up.
3. Make sure the document table glass is clean and dust free.
4. Place the transparency unit on the document table glass so that the hinges face the rear of the scanner and it fits on the document table glass.



5. Connect the transparency unit connector (arrow faces up) to the scanner's option interface.



6. Turn on the transparency unit.
7. Turn on the scanner.

For information on loading transparencies and selecting driver settings, see "Loading Transparencies," below.

Using the Slide Scanner

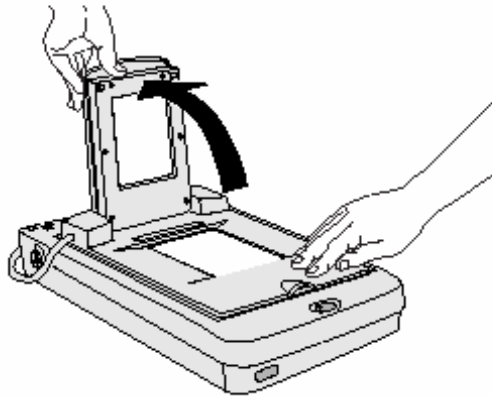
Loading Slides and Film Directly on the Document Table



Hold the film by the edges or use gloves. Touching the film surface with bare hands can leave fingerprints or other marks on the film.

You can scan slides and film strips in the 4 × 5-inch (101.6 × 127 mm) scanning area of the transparency unit. You can use film holders (as described in the previous sections) or place them directly on the document table. Follow the steps below.

1. Open the top of the transparency unit while holding the base down.



Align the slide so that the top edge of the slide corresponds with the top edge of the scanner. You may align up to 4 slides at each corner.

Using the Slide Scanner



Top of Slide

It is also *recommended* that the emulsion surface of the slide be face down (which means the shiny surface of the slide should be facing up).

1. Click on **File / Import / TWAIN 32** in the PhotoShop, allow the scanner to pre-scann, making the image appear. If the screen appears like Figure 1, make sure to set the **Document Source** to the correct slide type (positive film, negative film, etc.), and the right side of the screen should look like Figure 2.

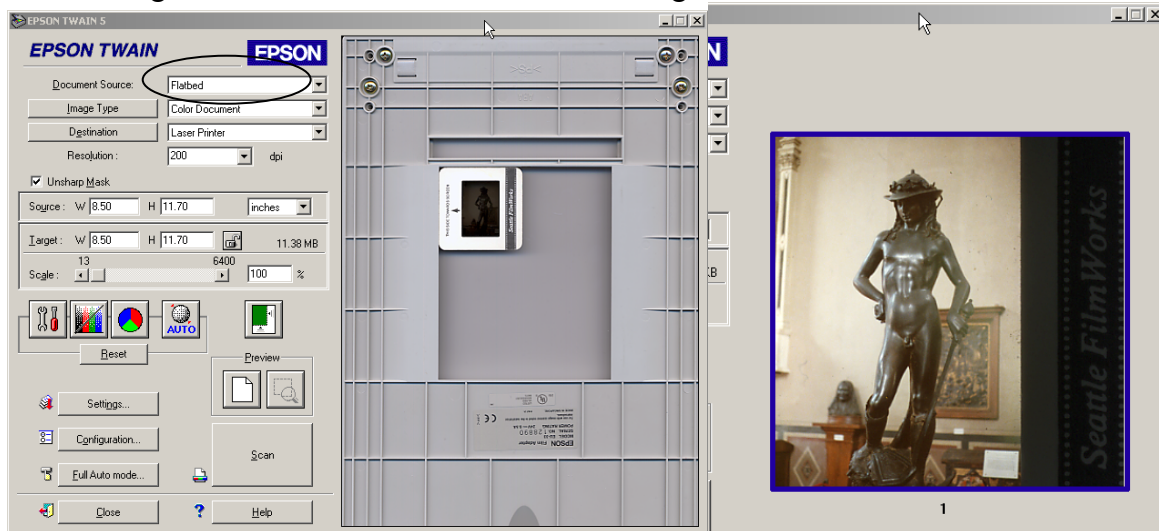


Figure 1

Figure 2

Using the Slide Scanner

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2. The picture may now be scanned, click **Scan** button. NOTE: scanning may take a minute. If the scanner cut off part of the image, please ask a TLC employee for assistance.
 3. When it is finished scanning, close the scan window by clicking on the **Close** button. You should see the original screen with your new picture on it.
 4. From the menu bar, click **File \ Save As**.

Name your file in the File name box.

You have the option of saving the file as a few different types; they are as follows:

- JPEG or JPG: This format compresses the image, with some data loss depending on the degree of the compression. This is the best format for scanned photographs used on web sites or for sending photographic images in email.
- GIF: This format is used mainly for computer-generated graphics such as buttons and bars and clip art style images. It works well for text and graphics with straight lines, but is limited to 256 colors and poorly suited for photographic purposes.

You can save the picture to disk, or to your **NT account**. (Please consult a TTC advisor if you have any questions regarding your file size and applications.) Since there are several ways in which to save your file, one of the advisors can suggest the proper format for your specific application. Select where you would like to save your file under 'Save in;', name your file under 'File name;' and click **Save**.

After you have saved your file be sure remove your slide from the scanner. If you would like to scan another slide, repeat steps 4 – 11.

Finishing up

1. When you have finished scanning slides, click on **File / Exit**.
2. Don't forget to take your slides out of the scanner, and to sign out on your way out of the center.

Scanning Tips

Scanning Tips

What setting should I use?

For most accurate reproduction, scan your images using the same data type as that of the final intended output device. This may also help you control file size. Here are some examples:

OCR Text and Line Art use the Black and white setting (or use the centers OCR software!)

Laser printer use Grayscale setting.

Monitor 256/True color use millions of color setting.

Post production use True color (CMYK) setting.

Experiment with different settings

Scan images using different settings. Compare the results on your screen to select the one that suits your needs.

How much resolution is enough

When scanning, the relationship between your scanner and the output device to use is important in determining the resolution. The following suggestions may be helpful in deciding:

Scan for the intended output device. For monitors (the internet), use 72 dpi (Windows large fonts)-96 dpi (Windows small fonts), laser printers 300-600 dpi, and photo-quality 1200-2400 dpi.

Scan at higher resolution (2x the original) when doing extensive image processing to work with as much information as possible.

Scan at higher resolution when enlarging the image to scan.

Scan at 1.5 to 2x the intended halftone screen's lines per inch when sending the file to a postproduction house to create halftones.

Highest resolution is not always the best selection

High-resolution images require enormous amounts of disk space. There are no advantages to scanning an image at a higher resolution than what it is to be displayed at. The standard color typesetting resolution is 180 dpi and a standard photograph ranges from 400 to 600 dpi. Similarly, exceeding the resolution capabilities of your output device or monitor will not result in a gain in image quality. A standard VGA monitor's display resolution in Windows is 72 dpi (Windows large fonts) or 96 dpi (Windows small fonts).

Scanning Tips

Scan photos instead of printed pictures

Images from magazines or books are composed of tiny dots. The typical resolution for color typesetting is 180 or 300 dpi, so scanning at higher resolutions offers no advantages. As a matter of fact, higher resolutions may even be worse because the scanner often sees white dots in between the printed color dots. To preserve accurate toning details, if possible, scan photographs instead of printed materials.

Scan good quality images and text

You always lose some information when you scan. By carefully choosing your images and settings, you can minimize this problem. For example, don't try to scan extremely light or dark images or those with very low contrast.

Limit the image size when possible

Small images require much less hard disk space and processing time than large ones. Be aware of how much disk space you have on your system when you acquire your pictures. If your available disk space is limited, you may only be able to copy a few photographs to your camera or computer.